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ABSTRACT

Three Florida associate degree in nursing (ADN) demonstration projects of the Nursing Curriculum Project (NCP) are described, and the history of the ADN program and current controversies are reviewed. In 1976, the NCP of the Southern Regional Education Board issued basic assumptions about the role of the ADN graduate, relating them to client condition and settings for practice. It is suggested that redefining the role of the ADN graduate has not resolved the mismatch of educators' goals and the hospitals' requirements. Therefore, the NCP decided to demonstrate how curricular change could be used to improve the performance of new ADN graduates. One of the three demonstration projects in Florida was Manatee Junior College's clinical electives and preceptors program, which was designed to provide students and nursing graduates the opportunity to take electives in clincial nursing for credit. The second demonstration program was Santa Fe Community College's elective in gerontological nursing, which centered on the knowledge and clinical abilities needed to improve nursing care of the elderly. Finally, the third project at St. Petersburg Junior College involved alternative teaching strategies (adjunct instructors, peer tutors, and mini-practicum). A 24-item bibliography is appended. (SW)

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PATHWAYS TO PRACTICE

Improving Clinical Teaching: The ADN Experience

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Southern Regional Education Board
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PREFACE

The Southern Regional Education Board's Nursing Curriculum Project (NCP) was funded in 1972 by the W.K. Kellogg Foundation of Battle Creek, Michigan, to clarify varying nursing program goals and determine their relationship to each other. The project's specific aims were to develop a set of assumptions about health care needs, propose kinds of nursing personnel to provide the full range of services implied, and propose a blueprint for nursing education to prepare these types of nurses within the education system.

The work of this first phase of the project (1972-76) was done by a 36-member seminar which met six times over a three-year period to determine the parameters of nursing knowledge and practice, roles for various categories of providers, and directions for future development in programs of nursing education. Recommendations to achieve a congruent system of nursing education were completed in 1975.

Subsequently the Kellogg Foundation set aside $2.5 million to demonstrate the principles of the recommendations in the nursing programs of the South. Now nearing completion, the demonstration phase of the Nursing Curriculum Project (1976-1981) has directly involved 22 institutions and agencies in the 14-state area of the Southern Regional Board (SREB). It has touched many more through liaison committees, through the work of the individual demonstration projects, and through periodic reports to the Southern Council on Collegiate Education for Nursing.

The issue section of this monograph, which is one in a series of final reports on the work and findings of the project, was written by Patricia T. Haase. Authorship of the description of the projects was shared by the Nursing Curriculum Project staff and the project participants. Information to prepare the monograph was taken from annual reports, site visits, and evaluation conferences. Project participants were: (Manatee Junior College) Georgeen H. DeChow, Janis A. Emmert; (Santa Fe Community College) Carol Bradshaw, Barbara Canning; (St. Petersburg Junior College) Almeda B. Martin.

Staff for this phase of the Nursing Curriculum Project has consisted of: Patricia T. Haase, Director; Mary Howard Smith, Coordinator; Barbara B. Reitt, Editorial Consultant; and Audrey F. Spector, SREB Nursing Programs Director.

IMPROVING CLINICAL TEACHING: THE ADN EXPERIENCE

In 1982, associate degree educators will celebrate the achievements of their first 30 years in nursing history. Much has been accomplished, and educators have reason to take pride in the forward movement of the associate degree in nursing (ADN) program. These thirty years have not been without controversy, and a few issues concerning the future of the ADN program remain unresolved. Many persons are concerned that the original purposes of ADN programs are inappropriate to the level of acute illness found in hospitalized patients today and argue that the two-year ADN curriculum should be revised to match the demands of the acute care hospital. Conservative educators believe that the role for the ADN graduate in hospitals, which they defined in the 1950s, is being ignored, and that ADN education will not continue to move forward until their definition of that role is widely accepted. Finally, both educators and nursing practice administrators are concerned with the ADN graduate's apparent lack of sufficient clinical abilities to meet marketplace demands upon graduation.

The demonstration phase of SREB's Nursing Curriculum Project (NCP) explored various approaches to these issues in projects funded by the W.K. Kellogg Foundation of Battle Creek, Michigan, and cosponsored by and located at various schools in the region; these projects are reported here. But because it is not possible to grasp the various suggestions for solving the complex and interrelated problems in ADN education without a knowledge of their origins, this report will begin with a review of the history of the ADN program and trace the evolution of its most troublesome controversies.

The Background: The Issues Emerge

The Nature of the Original ADN Program

Junior colleges and nursing education were first linked in the 1940s, when junior college faculty members were employed to teach courses in the sciences and humanities in hospital-based nursing programs. In 1949, representatives of the American Association of Junior Colleges and the National League for Nursing Education (NLN) met to explore what further contribution the community colleges could make to nursing education. In 1951, Mildred Montag made an appeal for the preparation of "technical" nurses in the community colleges, and in 1952, a pilot project based on her proposal was begun. The Cooperative Research Project in Junior and Community College Education for Nursing (CRP), based at Teachers College, Columbia University, was placed under Montag's direction. Hers was the call to mission that actually began the ADN movement.

The purpose of this seminal project was to develop and test "semi-professional" nursing programs. The five-year effort by seven community colleges and one hospital school demonstrated that students could acquire in two years the knowledge and abilities necessary to function as beginning staff nurses. In a 1980 article reviewing associate degree nursing education, Montag said, this was "an auspicious beginning" because it was the "first nursing education program to be developed through research rather than as the result of an historical accident." The project provided evidence that the ADN program made sense, that "this form of education would attract students, and that its graduates would be employable."

This ADN program was built on two major assumptions. One was that the various functions and roles in nursing practice could be differentiated from each other and that these roles and functions do not compose separate universes but, rather, lie along a "continuum . . . with professional at one end and technical at the other. At one point on the continuum the functions meet," a point at which the ADN graduate's role comes close to that of the baccalaureate (BSN) grad-

uate. Because functions could be teased apart and assigned to at least two separate nursing roles — professional and technical — it seemed to follow that there were at least two kinds of nurses, each kind requiring a different kind of education.

The second assumption was that ADN programs were complete, preparing the nurse for immediate employment, rather than requiring additional education. The word "terminal" was used to describe the program; "the graduate of a technical program — in this case, the associate degree nurse — had gone through a complete program," not one that needed to be supplemented before she could start practice.

Further, Montag believed — and she still believes — that ADN and BSN programs could not and should not be articulated, directly or otherwise. The purposes, curricular content, and teaching methods of the two programs are so different, she says, that it is not possible to apply a ladder concept of curriculum development to them. In regard to upward mobility, Montag says that "the early programs were content with being what they were intended to be — complete within themselves, possessing an integrity of their own." Now, in the 1980s, she suggests that too much attention to articulation with the BSN program harms both programs. "So much emphasis on mobility leads me to suspect a less than complete confidence in, or acceptance of, the technical program, and ultimately in the differentiation of functions." When ADN programs were still in their pilot stage, Montag stated that she believed this would be the only formal education for most of the students, but that no barriers should stand in the way of those wishing to change their career goals. Montag sees no reason today to change that belief.

It is "highly regrettable," she adds, that "planned development" of BSN programs did not occur when planning for the ADN program did. "The belief that I held at that time [1952] — and still do — was that diploma programs prepared technicians (and not very well at that) and that few baccalaureate programs were, in fact, providing professional education." The result was that ADN graduates were being prepared for a new role but no complementary role was being created for the BSN graduate (Montag, 1980, p. 248-49).

To understand the purposes and accomplishments of the CRP, one must examine the intellectual underpinnings of junior college education in the late 1940s and 1950s. As it was defined by the CRP and other independently developed ADN programs, technical nursing fit the definition of technical and semiprofessional occupations espoused by junior college educators at mid-century. It is important to understand that the word "technical" was not used in the way it is understood by the average person, to designate someone who is technically proficient, unusually skilled at procedures. Indeed, misunderstanding of this point, according to Rines (1977), has led to unrealistic expectations on the part of many associated with technical nurses.

Ruth Matheney, another early leader in the ADN movement, in an undated paper gave several definitions of technical occupations, showing the beginning definitions of the term and the disagreement over its meaning. She began with Kenneth Beach's 1956 definition of a technical occupation as a vocation that: (1) requires skillful application of specialized knowledge together with a broad understanding of operational procedures; (2) involves the frequent application of personal judgment; (3) deals with a variety of situations; and (4) often requires the supervision of others. A technical occupation, Beach said, offers the opportunity to develop an ever-increasing personal control over the application of knowledge to work and usually requires fewer motor skills than a trade or skilled occupation and less generalized knowledge than a profession.

Matheney said that in his 1966 definition, Norman C. Harris revealed how the concept was evolving. "Occupational" education, he declared, refers to any and all education and training offered by the junior colleges aimed at preparation for employment, as distinguished from curriculums in the liberal arts, the fine arts, or the humanities. Moreover, semiprofessional education is represented by formal curriculums leading to the associate degree and is designed to prepare the student for employment in career fields recognized as nearly professional in status. Semiprofessional workers usually work in close cooperation with, and perhaps under the direct supervision of, a professional person.

But "technical" education, Harris admitted, was a term beginning to acquire meaning in 1966. There was no unanimously accepted definition, but in his opinion, technical education: (1) is organized into two-year curriculums; (2) emphasizes work in the field of science and mathematics (but not always); (3) gives much attention to technical knowledge and general education but also stresses practice and skill in the use of tools and instruments; and (4) includes a core of general education courses and leads to the associate degree.

ADN programs were developed from these broad assumptions about the nature of semiprofessional or technical education. It was decided in the CRP to prepare graduates who would qualify for the registered nurse's (RN) licensure, meet the requirements for the associate degree, perform technical functions at the RN level, and be prepared to function as beginning practitioners and to become competent nurses (rather, it should be noted, than to be fully competent on graduation). Mildred Montag has never wavered from these goals and her views have widely influenced ADN program development.

Matheney was also specific about what technical nurses should be expected to do. Technical nursing practice, she thought, is concerned primarily with the direct nursing of patients who present common and recurring nursing problems. The major focuses are upon physical comfort and safety, physiological malfunction, psychological and social difficulties, and rehabilitative needs of patients. The technical nurse is responsible for the provision of nursing measures and medically delegated techniques. This involves the use of the problem-solving process in identifying nursing problems, planning nursing care, implementing nursing care plans, evaluating the effectiveness of nursing intervention, and revising nursing care plans in the light of experience. Matheney's ideas were developed later than the CRP's notions, but are closely related to Montag's.

Matheney's definition of technical nursing practice was widely used, but some faculties developing ADN programs and having little access to organized curriculum projects evolved their own assumptions about technical nursing in quite an isolated fashion. As a consequence, the word "technical" became associated with lower quality and has been discarded by many. For example, the Council of Associate Degree Programs of the NLN voted to discard the word "technical" from its deliberations.

Once established, ADN programs grew rapidly, the number exploding from two in 1952 to 688 in 1980, a rate of growth in just 28 years comparable to the rapid rise of hospital-based (diploma) programs during the early 1900s. Rines (1977) reports that from 1952 to 1974 the number of programs doubled approximately every four years and at one time grew at the rate of one per week. When the growth began to level off in 1974, these programs constituted 42 percent of the total number of basic education programs in nursing and enrolled almost half the students. In that year, programs graduated over 43 percent of the nurses qualified to write state licensing examinations; in 1980, the number was 47 percent (NLN, 1981).

The 1980s: Current Controversies and Issues

It is difficult to say just when divergence from the original ADN program began. ADN faculty members from the early years were typically highly loyal to ideas inherent in the original program, especially to its goals. Pressure for change made itself felt, however, for the ADN graduate was often not well suited to the needs of the hospital — the program's product did not meet marketplace demand.

Controversy has arisen between conservative ADN educators wanting to retain the basic tenets of the original programs and other ADN faculty who now wish to achieve different ends. The conservatives are alarmed at the erosion of the commitment to the basic assumptions of the original program. Bensman (1977) defines these fundamental tenets as: (1) preparing for technical nursing functions in the direct care of patients, (2) preparing the graduate in less time than is needed to complete a hospital-based or BSN program, (3) providing the graduates access to supervision by others more expert than they, and (4) placing the program in the junior or community college (some ADN programs have been located in colleges and universities).

Bensman feels that divergence from original goals stems from two causes: first, ADN faculty members are sensitive to the marketplace demands while they lose sight of the primary goal of preparing the technical nurse in the original mold; and second, both faculty and students are concerned about opportunities for upward mobility within the system of nursing education. For this reason, curricular development in ADN programs is focused more on insuring the transferability of credit than assuring the preparation of a nurse who is similar to the one prepared by the CRP in the 1950s.

In addition, conservative educators believe that their original concept of the clinical laboratory — that nurses' instruction in the hospital should resemble instruction in other science laboratories within the community college and occupy fewer hours than had been typical in nursing programs — has too often been abandoned. On the other hand, nursing service personnel in clinical agencies and some ADN faculties protest that the size of the clinical laboratory groups (15 to 20) in the original ADN program is now too large for one instructor to handle. The conservatives object to clinical laboratory groups numbering only five or six students; they are especially opposed to the assignment of one student to one or two patients. On the other hand, faculty members who do not ascribe to the original tenets may have tried and discarded "multiple assignment," where as many as four students are assigned the care of a single patient: one to actually care for the patient, one to observe and critique her work, one to study the clinical knowledge needed to provide the care, and one to perform medically delegated tasks, such as changing dressings, monitoring the intravenous therapy, and giving medications.

The change in clinical teaching practice toward instruction of smaller groups has come about, according to Bensman, because there is too little understanding of or commitment to the original purposes of the ADN program. Many current ADN faculty members, Bensman notes, have come from diploma programs and have retained a traditional philosophy on student assignment: one student to one or two patients. Further, it is not unusual to find many clinical laboratories in ADN programs approximating typical nursing service tours of duty; for example, some are scheduled to last from 7:00 a.m. to 3:00 p.m. Conservative ADN educators see this as an emphasis on "doing" rather

than "learning." Bensman fears that the rationale for this kind of clinical assignment is that the student must learn how to participate in all the nursing activities of a normal hospital day rather than pursue particular learning objectives in a course of study.

This controversy lies at the heart of the issues that have been covered comprehensively in the NCP publication *Acclimating the Nursing Novice: Whose Responsibility?* What are we expecting of the recent graduate of the ADN programs and are we prepared to deal with the fact that they *are* novices? The answers vary, depending on whether the focus is more on education or on service (SREB, 1982).

Another change that is a response to the demand for a marketable product is the increased length of the typical ADN program. According to Bensman, approximately 300 programs are now longer than their original four semesters or six quarters, and she wonders how soon faculties will "fill this added term with content and then feel a need for still another term" (1977, p. 512).

Opponents to the conservative stance say they cannot follow the original ADN program design because there is too much content to be taught in two years, too little clinical practice time, and too high a student-teacher ratio to insure the graduation of a safe practitioner. Moreover, some ADN programs articulate with BSN programs to put into practice the much-touted options for educational mobility.

Other departures from the original structure of the ADN program include the addition of courses on leadership (the management of nursing groups) or on critical care nursing, both of which supersede the goal of preparing the nurse to give direct care to patients having common and recurring illnesses under the direction of a nurse having greater expertise. Whether these courses have been added as a result of pressure on the nursing faculty from hospital nursing service administrators is difficult to ascertain. What is certain is that the clinical abilities of the new ADN graduate are widely criticized.

The ADN Nurse in the Hospital: The Marketplace Reaction

Nursing service directors have been most vocal about the clinical competencies of the new ADN graduate. According to Rotkovitch (1976), nursing service directors have been known to accuse nurse educators of not knowing what to teach.

Rotkotvitch wrote that "Montag has assured me that the associate degree program was initially intended to prepare nurse technicians — nurses, who, upon beginning practice, would have *certain* nursing skills and be qualified to perform *certain* functions and, with experience, it was expected that these nurses would grow in technical expertise and, individually, would have potential to move from this base upward on the career ladder in nursng." This concept, Rotkovitch remarks, "was not always communicated in clear and precise terms to people on the delivery line" and, faced with marketplace needs, nursing service directors had to employ these nurses and "hope for the best" (p. 234).

Cicatiello identified five major weaknesses that she and her colleagues observed in new ADN graduates. The first was "insufficient clinical experience to translate scientific principles and theory into nursing action — the theory-practice gap." The second was a lack of knowledge about pharmacology; the student often had to glean pharmocological information by herself, from content that was integrated into broad subject matter in ADN program courses. Further, Cicatiello criticizes the ADN student's lack of preparation for the evening and night tours of duty. But the most damaging criticism of the ADN nurse focuses on "a weakness in her ability to organize, to set nursing priorities 'on the run' and to make simple decisions about nursing care" (quoted in Martin and McAdory, 1977, p. 503). The last complaint may be a sign of the discomfort of the new graduate in the hospital setting and of her reluctance to ask for help when needed, thereby raising her own sense of frustration in the work situation.

In addition, Rotkovitch protests ADN educators' inclusion of "more and more theory in their curricula, to the point where many of them now represent duplication of the baccalaureate curriculum, but in a diluted form. After all, the same content cannot be taught ... in two years as in four. As a result, many associate degree graduates today are neither fish nor fowl —lacking a solid knowledge base but not technically proficient either" (1976, p. 235).

The battle between nurse educators and nursing service administrators was thus joined: nursing service administrators said educators were preparing novices for an unreal world, while educators said that the administrators did not know how to use the ADN graduate for optimal patient care.

In retrospect, it seems that the original ADN program purposes and the marketplace demands on those programs were mismatched. Nurses taught according to the original assumptions in early programs were being asked to perform in the workplace at a much higher level than they were prepared to practice. The situation reached a turning point in the late 1970s. Orientation programs were becoming more costly and in-service education departments were becoming larger, and both educators and nursing service administrators wanted to correct the apparent drop in the quality of nursing care. Staff shortages were beginning to occur. Clearly, something had to be done to reverse these alarming trends.

Beginning Solutions

First, redefinitions of the role of the ADN graduate were attempted. ADN competencies were identified first in curricular studies and later in public statements about the role the ADN graduate should assume in hospitals. Consequently, there are now many lists of competencies for use at local, state, regional, and national levels. Essentially, these are only descriptions of roles for the ADN graduate, not broad objectives to be used to develop a curriculum.

In 1976, the Nursing Curriculum Project of the Southern Regional Education Board issued basic assumptions about the role of the ADN graduate, relating them to client condition and settings for practice. The characteristics of ADN practice were identified as:

- Being directed toward clients who are experiencing acute or chronic illnesses that are common and well-defined and who have been identified as being ill or in need of diagnostic evaluation;
- Consisting of processes that are standardized, in common use, and directed toward alleviating both biophysical and psychosocial health problems, the outcomes of which are usually predictable;
- Including making nursing judgments on scientific knowledge that is specific and factual;
- Concerning individuals but given within the context of the family and the community;
- Being under the leadership of a more experienced staff worker, a generalist clinician, or a clinical specialist (Haase, 1976).

In 1978, the Council of Associate Degree Programs of the NLN issued a set of competencies for ADN nurses that were stated in terms of subroles: provider of care, communicator, teacher of patients, manager of a group of patients, and member of the nursing community (NLN, 1978).

Unfortunately, redefining the role of the ADN graduate has not resolved the mismatch of educators' goals and the hospitals' requirements. The NCP, therefore, decided to demonstrate how curricular change could be used to improve the performance of new ADN graduates. The issues were clear. Should ADN curricula be altered to provide more clinical laboratory time? Should they be enriched on an elective basis to provide a greater clinical repertoire for new graduates? Should better teaching strategies be designed to improve clinical instruction?

THREE DEMONSTRATION PROJECTS IN FLORIDA

Clinical Electives and Preceptors
Manatee Junior College

The NCP staff, the nursing faculty of Manatee Junior College in Bradenton, and the W.K. Kellogg Foundation agreed to sponsor a project to develop and teach electives centered on the knowledge and clinical abilities needed to improve nursing practice of the ADN graduate. The electives were to be offered to ADN students and to graduates in pursuit of continuing education.

Nursing faculty at Manatee Junior College were interested in devising ways to strengthen the clinical preparation of their students to give secondary care. The Department of Nursing also felt responsible for making continuing education available to Manatee graduates working in the surrounding area, especially in light of the Florida law which makes continuing education mandatory. The department thought that elective courses focusing on clinical nursing practice in selected areas might meet both needs. To facilitate the students' clinical learning, experienced nurse preceptors would be employed to assist in the clinical portion of each course.

The goals were to provide the student with opportunities to take electives in clinical nursing for credit and to improve their clinical skills beyond the level required for graduation, and to provide nursing graduates a way to increase their clinical skills and undertake continuing education for credit. To accomplish these goals, it was necessary first to ascertain which clinical competencies most needed strengthening. Electives could then be developed, after which cooperation from the community health agencies could be obtained and appropriate preceptorships arranged.

The Survey and Pilot Program

To find out what clinical competencies were most needed, the project used both questionnaires and interviews.

Two populations were surveyed by questionnaire: the sophomore nursing class at Manatee Junior College and RNs employed in hospitals and nursing homes in Sarasota and Manatee counties. The survey

asked respondents to identify nursing subjects that interested them and that would help them improve their clinical competencies. Their answers allowed the planners to select topics that reflected the clinical needs and interests of both nursing students and employed RNs. The four topics most frequently suggested were physical assessment, pharmacology, leadership and management, and critical care.

Originally, the plan was to limit the project to currently enrolled students and graduates of the nursing program at Manatee Junior College. Later, it was decided to open the elective courses to any RN who might be interested in obtaining continuing education for credit. The legislative mandate in the state of Florida requiring continuing education for relicensure of all nurses made this seem particularly appropriate.

Interviews were held with 30 persons — nursing administrators, clinical specialists, physicians, and nursing faculty. Although these individual interviews were informal, persons were consistently asked: (1) From your experience with graduates of AD programs, are you aware of selected clinical competencies which could be strengthened? (2) Could you suggest a specific competency which any RN may need, and which you would like us to include in our program of clinical electives? (3) What problems do you anticipate in offering such a program?

Information from the surveys and interviews provided a tentative list of topics from which to develop clinical elective courses. Three important questions, however, needed answering: (1) Would students elect clinical courses as part of their academic schedules? (2) Would students have time to include clinical electives in their existing schedules? (3) Would graduate RNs enroll in clinical electives for credit?

To answer those questions, two pilot courses were developed immediately — one for students and one for graduate RNs — selecting the topics from those most frequently named on the questionnaires. They were offered as noncredit courses in the spring semester, 1978. A physical assessment course was offered to students on a pass/fail basis and a course about leadership and management was offered to graduate RNs in a weekend workshop.

All three questions were answered positively by the experience with the pilot courses. Eight students elected the course on physical assessment; none of them had difficulty with time to complete work. Six RNs elected and four completed the program in leadership and management. Although the number of students was small, the cumulative results of their experience justified the development of a full program of clinical elective courses.

Students who took the pilot course in physical assessment were mailed an evaluation form one year later. Four of the seven students returned the evaluation. All said they had utilized the physical assessment skills intensively since graduation and had expanded upon them; and all suggested an advanced physical assessment course.

In addition, the project director conducted a direct interview with the immediate supervisor of each of the four respondents, asking the following questions: (1) Do you notice any difference in clinical functioning in regard to physical assessment in these graduates as compared with other ADN graduate nurses? (2) What skills can you identify in which they excel? (3) Because of these skills, have they advanced faster than other ADN graduates in assuming responsibility for patient care? (4) Would you encourage the inclusion of this course in the ADN curriculum? All four supervisors said these graduates clearly possessed better physical assessment skills than other graduate nurses. They excelled in taking and recording a nursing history, in assessing the circulatory system, the respiratory system, and the neurological system, and in providing more comprehensive patient care.

One year following graduation, all four were in positions of increased patient responsibility. Admittedly, the pilot group, being voluntary, was well-motivated; however, they were not all academically outstanding while at Manatee Junior College. And, admittedly, the population of the pilot group was small. However, the value, it seems, to the student and to the employer could not be disputed.

College and Community Support

Because part of the project focused on community service, the staff worked closely with the ongoing continuing education program of the college, capitalizing on the project's advisory committee, which provided a cross-section of health professionals from two counties. The nursing faculty as a whole served in an advisory capacity to the development of the clinical objectives, and the department's curriculum committee offered suggestions when the courses were submitted for approval.

Courses developed for the full implementation phase, on the basis of survey returns and experience with the pilot courses, included:

Nursing Skills	Physical Assessment
Dialysis Nursing	Pharmacology
Orthopedic Nursing	Coronary Care Nursing
Gynecological Nursing	Community Health Nursing
Urological Nursing	Pediatric Nursing

Leadership and Management

Many different resources in the community had to be explored because of the varied nature of the courses. First, the project director visited health personnel in various agencies to develop a working rapport. The director also served on an intercity nursing committee overseeing articulation between service and educational institutions. Nursing leaders on the council

represented the nursing community in service, education, and private practice. Finally, a committee of directors of nursing, directors of in-service training, and head nurses of all the institutions used by Manatee for clinical electives served as resources for developing the preceptorship program, including criteria for preceptor appointments.

Preceptors were appointed in each participating clinical facility, the selection being made cooperatively by the project director, a course instructor, and a representative of the agency. Preceptors had to possess:

- The capability of acting as a role model, demonstrating knowledge and skills in reinforcing theory and practice;
- The time and willingness to instruct, guide, and assist students to meet clinical objectives, viewing the student as a learner rather than a worker;
- The ability to promote student independence in the clinical setting;
- The willingness to assume legal responsibility for students and current malpractice insurance;
- An understanding and acceptance of the role of preceptor.

The preceptor was expected to take responsibility for student instruction, guidance, assistance, and evaluation; for current relevant and accurate knowledge of theory and clinical practice; for scheduling students' clinical time, being accountable for the required hours, and supervising practice; and for attending the planning sessions with faculty and other preceptors. Preceptors were encouraged to audit the theory portion of the course.

The project had budgeted funds to reimburse the preceptors for their time, but the preceptors themselves agreed that clinical instruction was part of their professional responsibility and they welcomed the opportunity to update and evaluate their own theory and practice. The college, therefore, decided to reimburse preceptors by offering each a continuing education course without cost, an arrangement that became part of the program policy.

Full Program Implementation

Two courses — Neurological Nursing and Therapeutic Communication — were added to the list of approved clinical electives and all 13 courses were offered in the academic 1978-79 year. With the approval of their clinical instructor and the department chairman, the courses were open to currently enrolled nursing students at either the freshman or sophomore level, to students auditing nursing courses, to LPN students who had received credit by challenge for beginning nursing courses, and to graduate RNs. The clinical electives were scheduled flexibly so that each student could fit the course into academic, home, and work schedules. In the clinical component of each course, there were two students for each preceptor. In the 13 classes total enrollment was 69 RNs (12 of the RNs were ADNs, 5 were Manatee graduates) and 26 Manatee students in their last semester. In addition, a local agency asked the college to give the clinical elective in dialysis nursing to 10 RNs to prepare them for work in a new acute dialysis unit, indicating that the community agencies were seeking quality continuing education for their nurses.

In the summer session, eight courses were given on the main campus at Bradenton and two on the campus at Venice, with a total enrollment of 28 (including 10 ADNs and 3 Manatee graduates). The nursing skills elective was offered in the summer to Manatee nursing students who had completed three semesters. Seven students enrolled. Since the student-teacher ratio was low, much interchange for learning was possible, especially in the clinical setting.

Support and cooperation from community health personnel expanded during the implementation year. Fifteen new facilities were added to the project's roster of clinical resources, affording a variety of settings, including county health departments, clinics, nursing homes, and even a jail, in addition to hospitals.

The number of preceptors grew also, with the addition of 23 new ones. In the next year, money payments were made in the cases of preceptors whose expertise in a particular area of clinical nursing necessitated reimbursement for their time. The others continued to receive a free continuing education course.

Plans for the Future

A supplemental survey was an important activity of the second project year. More detailed than the earlier survey, it was needed to provide a basis for planning an ongoing program that could serve both the college and the community after the effective date (January 1, 1980) of the law requiring continuing education after licensure. This questionnaire was also to serve as a cross-check on the selection of courses in clinical nursing offered in the program of electives for credit. Since graduates of the nursing program at Manatee Junior College were identified on the questionnaire, their replies could be compared with the suggestions made by currently enrolled students and faculty regarding areas in nursing which needed further attention in the existing curriculum and might be offered as clinical electives.

The questionnaire was mailed to all RNs (2,800) and LPNs (1,300), active or inactive, in Sarasota and Manatee counties. However, since the program of clinical electives is primarily intended for RN students and graduates, analysis of replies was restricted to data received from RNs. The RNs identified the following topics as being of greatest interest:

Refresher Course
Drug Interactions
Coronary Care Nursing
Physical Assessment
Anatomy and Physiology Review
Intensive Care — Surgical Nursing
Fluid and Electrolytes
Leadership and Management
Community Health
Communications Skills

The least interest was shown in pediatrics and maternal-child health, which undoubtedly reflects the fact that the population of the two-county area is primarily over 65 years of age. Three of the hospitals in the area do not have obstetrical or pediatric units. ADNs selected the following topics of high interest:

Coronary Care Nursing
Leadership and Management
Physical Assessment
Anatomy and Physiology
Drug Interactions

Manatee Junior College graduates selected the same topics, though in a slightly different order. Analysis of these areas of interest revealed that the program of clinical electives that had been identified covered adequately the community's continuing education needs.

The evidence to date (including evaluation of clinical competencies of the students in pilot courses, employer evaluations, community response to clinical courses, and results of the survey) seems to indicate that offering clinical nursing courses for credit is viable and successful.

The project offers the electives for one, two, or three credits, depending on the amount of clinical time the student elects, a concept being utilized more and more extensively in community colleges. One way to implement this option is to offer theoretical content for the first credit, add clinical time for the second, and even further clinical practice for the third. The three may be completed at different times. Manatee's program of clinical electives to this point has offered fixed credit offerings, but additional clinical hours could be provided as more credits are elected.

Outcomes and Conclusions

The Manatee project accomplished its primary goal: enhancing the clinical skills of both ADN students and graduate nurses. Besides that, some important fringe benefits have accrued. Relationships between the college and service agencies have grown much stronger, and better administrative rapport has greatly facilitated clinical placement of students. Moreover, the working relationships between faculty and preceptors have enriched as both have contributed to course development.

The program has grown and become known in the health care community, attracting increasing support and cooperation from health agencies in the area. Gains like these reassure Manatee Junior College that it is making a valued contribution to better health care in its community.

An Elective in Gerontological Nursing
Santa Fe Community College

The fast-growing need of the older population for nursing home care and the deficit of nursing personnel to meet it prompted the NCP staff to speculate about remedies whose utility might be assayed on a small scale. A review of the literature suggested that education about aging can be helpful in modifying nurses' and nursing students' attitudes toward the old and skills in working with them (Heller and Walsh, 1976; Gillis, 1973; Campbell, 1971), and that ADN students might benefit from additional instruction. It also seemed possible that continuing education in aging might be an effective vehicle for nurses who are caring already for the elderly, without special preparation for doing so. A demonstration project was proposed to raise and, it was hoped, answer two questions:

(1) Would an elective offered as part of the ADN curriculum effectively interest nursing students in working with the aged and prepare them to do it ably?

(2) Could the same elective serve the community as continuing education to improve the skill of RNs giving care to older patients so that it would be both more knowledgeable and humane?

Background

There are few RNs in nursing homes. Senator Frank Moss of the U.S. Senate Select Committee on Aging has said that people taken right off the street and paid minimum wages, who have no training and who are grossly overworked, provide the bulk of the service in America's nursing homes (Butler, 1975). Budgeted staff vacancies are few but the ratio of RNs to patients remains low: for each 100 beds there are five RNs (U.S. Department of Health, Education, and Welfare, 1978).

Not many nurses elect to work in nursing homes. In 1973, approximately 7 in every 100 employed nurses were in nursing homes caring for nearly a million

patients. The annual turnover rate of nurses in these homes was 71 percent. In 1977, there were almost 67,000 RNs caring for slightly over a million patients, but the ratio of nurses electing nursing home practice remained the same, 7 percent. The total number of nurse aides in nursing homes for that same year was close to one-half million (424,900) and LPNs numbered slightly over 85,000. When these numbers are converted to percentages, it can be confirmed that 74 percent of the work is provided by people with little training (U.S. Department of Health, Education, and Welfare, 1979).

There are many reasons for the shortage of skilled nurses in the care of the elderly. Changes in nursing home facilities or administrative practice could alleviate the problem, but a full solution will require changes in cultural attitudes and educational practices as well.

Contrary to popular belief, the 1.3 million Americans over 65 who are currently in nursing homes constitute only 5 percent of the elderly population, and according to many, only 10 to 15 percent more ought to be receiving constant monitoring because of their mental and physical disabilities. But the quality of the institutional care they receive varies widely, and many experts believe that private homes run for profit should be more closely monitored or replaced by a different kind of institution. The fact that the quality of nursing care of the elderly varies widely poses both special problems for and challenges to nurses and their educators.

The Nursing Department at Santa Fe Community College in Gainesville believed that nursing had not made the contribution to the care of the aged of which it is capable, and that the Santa Fe nursing program was in an excellent position to begin to fill the gap. The college is located in a state having a high percentage of elderly residents and thus offering more than the usual clinical opportunities in the older age bracket; moreover, it is located in a city where there is a well-established university institute on aging. The Santa Fe nursing faculty has pioneered teaching strategies that have proved highly successful in strengthening the students' clinical decision making and their application of human skills to patient care. All these factors suggested that Santa Fe was in a unique position to demonstrate the improvement of clinical teaching and learning in ADN programs and to indicate a way for nursing education to help meet a growing health need — the nursing care of the elderly.

The NCP staff, the nursing faculty at Santa Fe Community College, and the W.K. Kellogg Foundation agreed on a project to develop and teach an elective course centered on the knowledge and clinical abilities needed to improve nursing care of the aging client. This course was to be offered to ADN students as an elective and to ADN graduates as a continuing education course.

Developing the Course

The project director, who was also to be the principal instructor, spent three months developing the course and obtaining its approval by the faculty. With part-time assistance from two other nursing faculty members, she created learning modules for the course. To measure students' attitudes and knowledge about the aged, she selected the Kogan Old People's Scale and the Tuckman-Lorge and Palmore true-false tests.

Arrangements were made with six consultants to visit the project during the year to advise the director on the course content and materials and the project's work with the students. The consultant group included five established geriatric nurses and the non-nurse author of the course text (Charlotte Epstein, *Learning to Care for the Aged*). The consultants noted that nurses have long been active in developing primary care services and alternatives to nursing home care for the elderly. Such services are based on the belief that, as the population continues to grow older, the needed health services will require not only better prepared health personnel but also more alternatives for home care of the aging population. Services have improved over the last decade, but many authorities believe that, nevertheless, the health care system is unprepared for the numbers of persons who will need services in the future.

The project director also reviewed some 60 audiovisuals for the course, employed a secretary, supervised the renovation of a trailer as project headquarters, arranged for clinical experience, formed an advisory committee, and prepared a public information program about the course.

Public information took several forms. The director personally announced the course to all ADN students registered at Santa Fe and to the staffs of the three local geriatric facilities. One-page fliers were prepared and distributed to health agencies, nursing homes, hospitals, and nursing organizations. Advertisements were placed periodically in the newspapers and on the radio. Announcements about the course were printed in the Florida Nurses' Association district newsletter and were distributed at district meetings each term. Course announcements were also distributed at the Southern Conference on Gerontology.

All activities of the project were reviewed by an advisory committee composed of the project director, the coordinator of nursing, one nursing faculty member, and two nursing students from Santa Fe; a psychologist and an occupational therapist from the University of Florida; the director of nurses at the Community Convalescent Center; and a senior consumer. During the planning period this group helped the project director identify key clinical skills, develop the course outlines, select course materials, and formulate student recruiting strategies.

The project staff devoted much of their planning time to the development of modules for individualized instruction. Nine modules were constructed that included pre-tests, learning objectives, enabling activities, bibliographies, and post-tests.

Teaching and Administering the Course

Fifteen students were admitted to the course when it was first taught. Of these, 13 were Santa Fe nursing students who were taking the four-credit course in addition to their regular requirements. They included both first- and second-year students, the prerequisite being two prior nursing courses. The remaining two students were RNs, both ADN graduates. One was the nursing coordinator for the local Older Americans' Council and the other was a director of nursing in a nursing home. The class met three hours a week for 15 weeks.

After the attitude scales were administered, the course opened with an awareness exercise and a discussion of looking at self, at aging, and at the nurse-patient relationship. In the following weeks the course covered the aging process — its physiological, social, and behavioral changes — and ways to deal with these changes: the protection and promotion of normal physiological functioning, environmental adaptation, communication, and social interaction. Films, simulations, and field trips were scheduled frequently. Each student undertook a special project usually a paper but sometimes clinical activities.

Students went in three small groups for a week of concentrated clinical experience at the Advent Christian Home in Dowling Park, which was chosen because it would give students an opportunity to work with both the well old and the sick old, and because it would also give them an idea of what a well-planned, well-staffed facility with a genuine helping philosophy can do. Student reactions to this experience were exceptionally good.

When all the assignments were completed, students took the attitude scales again as a post-test and showed a definite trend toward more positive and informed attitudes toward aging.

The course was given twice in the summer as continuing education and was opened up to students not included in the original plan — LPNs, diploma graduates, and faculty members, parts of the nursing community that had shown a great deal of interest when the course was first announced. The modules were essential for individualizing learning experiences for the diverse group of students. In the fall, more Santa Fe students signed up to meet classes, which now were scheduled for all-day sessions on Saturdays, and an additional group completed the learning modules independently.

During the life of the project, a total of 50 students completed the course. Post-tests continued to show attitude change toward the elderly in a favorable direction, but a re-test at the end of a three-months' work experience showed a regression in scores to a more negative view. The faculty was at a loss to explain the decline in favorable attitudes. For the most part, nurses who had completed the course returned to acute care settings and may have been influenced by others' values for cure rather than care, but the scores of nurses who remained in nursing homes also digressed. Evidently attitudes formed in the classroom and the Advent Christian Home gave way to the realities of employment workloads.

Special Problems in Teaching Geriatric Nursing

The problems that plague health care for the elderly pose unique problems for nursing educators. The planners of the Santa Fe project confronted some of these in planning the clinical aspects of the course.

The project chose to use the Dowling Park facility because of its excellence, in the expectation that it would be particularly conducive to establishing positive attitudes and interests in the students. However, excellent nursing homes exist side by side with poor ones, and it is not always possible to provide ADN students with such good clinical settings for learning positive attitudes toward gerontological nursing. Project planners knew that their goals could best be reached in a clinical setting that exemplified a better kind of care for the elderly.

High quality care is available only to a portion of the elderly population. While nearly 21.6 percent of nursing home residents are cared for in nursing homes and campus complexes operated by religious, benevolent, and trust organizations that are voluntary and nonprofit, and another 10.2 percent reside in nonprofit homes administered by federal, state, county, and municipal governments, fully 68 percent of nursing home residents are housed in commercial nursing homes (U.S. Department of Health, Education and Welfare, 1979, p. 8). That percentage translates to almost one million people (888,800).

The budgets of the benevolent facilities are predicated on financial returns from trusts, endowments, community funds, governmental sustaining funds, and monies from Medicare and Medicaid. On the other hand, commercial nursing homes are run for profit. Anyone with enough capital to buy, build, or operate one of these homes may do so. There are well-intentioned owners, but there are others who hope to make the "fast buck" from the enterprise. America is the only country in the world that permits the care of the old to become "good business." Further complicating the situation, the nonprofit facilities are often selective in their admission policies so that they can concentrate on residential and personal needs rather than on nursing care for the sick elderly. They do not offer services for the emotionally disturbed, the in-

tellectually impaired, or the acutely ill client. The net effect is that medical and social services are often available only so long as the older person remains fairly healthy and ambulatory; when a client becomes seriously ill he is moved to another setting, often one not as good.

The Santa Fe project students regarded their clinical time in the home at Dowling Park as a valuable experience that enabled them to expand their conception of long-term resident care for the elderly, and their opportunity to work in such a clinical setting was a crucial factor in the success of the project. However, just how well such an experience prepares the nurses to function in and cope with the real world of the American nursing home remains problematic.

Interpreting the Experience

The project staff members frankly state that the overall enrollment of 50 was below what they had hoped for, despite good local publicity and communication. After the first quarter, special recruitment measures went into effect. Potential participants were invited to attend single classes. Students at Santa Fe were allowed to register for the course without paying additional tuition. Also, it was possible for continuing education students to audit the course at a reduced fee and still meet the requirements of the Florida State Board of Nursing. The total number enrolled was respectable and worthwhile, to be sure, but the staff could not help comparing this with what happened in the case of a previous special offering in intensive care and coronary care nursing, when two classes of 30 students each signed up in short order.

One reason for the low level of student interest is that nursing care of the elderly is so often difficult. Elderly patients' bedside care requires a great deal of time, and their disabled and disoriented states demand special attention. About 27 percent suffer from visual handicaps and 16 percent have grave hearing defects. The average nursing home resident has several chronic conditions and impairments; 37 percent of them are bedfast or chairfast; most present behavioral problems requiring additional nursing time. By far, the most common causes of disability among them are diseases of the circulatory system — accounting for nearly 40 percent of the total. Irreversible senility and other mental disorders associated with aging account for another 33 percent (U.S. Department of Health, Education and Welfare, 1979).

Some 85 percent of persons who enter nursing homes die there, and the average length of stay is 1.1 years. One-third of those admitted die within the first year. One-third live up to three years in the institutions. The remaining survive beyond three years (Butler, 1975, p. 267). Such a death rate takes its toll on the nurse's own emotional well-being.

A second factor causing nursing students to turn away from geriatric nursing concerns prestige and working conditions. Burnside says that nurses caring for aged patients, and especially those employed in nursing homes, often feel like second-class nurses who are thought to be unable to perform in a general hospital setting. The myth that it does not take much skill or expertise to take care of old people unfortunately still prevails (Burnside, 1976, p. 17).

Furthermore, nurses are not financially rewarded for their work in care of the elderly. In 1977, RNs' average pay for full-time employment in nursing homes was $5.58 per hour or just over $11,000 per year. Fringe benefits were few or not available. Nurses with bachelor's or higher degrees made only 29 cents per hour more, and nursing assistants made a mere $5,699. Some of these salaries could be described as those of the working poor.

These low salaries are particularly distressing when they are compared with the wages these nurses could be earning in business and industry. After a 13-week course in key punching at Western Electric, a novice begins at $6.00 per hour, and a computer programmer is soon eligible for nearly $20,000 a year. A cashier's salary at a chain grocery is higher than the staff nurse's salary in a hospital, and hospitals pay nurses better than do nursing homes. Low differential wages for advanced nursing education can only result in a severe shortage of better educated nurses in nursing home employment. It is not surprising, then, that with nurses and nursing students, geriatrics is the least preferred specialty and the elderly the least preferred age group to work with (DeLora and Moses, 1969; Campbell, 1971; Kayser and Minngrode, 1975).

A related problem is that there are not enough physicians and nurses who have the education or interest in the clinical practice of geriatrics. At a 1978 House hearing on the health care of the elderly, data were presented indicating that only 51 of the nation's 117 medical schools had courses in geriatrics and only three had specialty preparation programs, according to Carlson (1979). Fifteen trained geriatricians were found among some 25,000 faculty members. Yet, the elderly account for two out of every five general medical office visits. An independent survey of 96 medical schools showed that only 16 offered a course in geriatrics, and 69 percent did not include geriatrics in their curriculum at all or considered the incidental contact students had with elderly patients to be sufficient clinical education in the care of the elderly (Akpom and Mayer, 1978).

The situation in nursing is not very different. Senator Frank Moss, of the Senate Select Committee on Aging, reported in 1975 that of 512 nursing schools responding to a survey, only 27 answered that they included or planned to include geriatrics in the curriculum as a specialty. Moss's committee further reported that as of 1974 there were no graduate programs preparing nurses for gerontological nursing practice (Brower, 1977).

By 1979, 21 gerontological nursing curricula were listed among the 81 master's programs accredited by the NLN and the number appears to be increasing. There are also geriatric nurse practitioner programs leading to a certificate. According to data compiled by the Division of Nursing, HEW, the number in 1979 was 10 (Brower, 1977).

Recent developments in the state of Florida may well fortell future national trends for inclusion of geriatrics in nursing curricula. The 1975 Rules and Regulations governing schools of nursing mandated the teaching of geriatric nursing in all technical and professional nursing programs. To date, that mandate has been interpreted in different ways by different programs. Some schools added more classroom instruction, some more clinical experience, and others a combination.

Society as a whole is prejudicially ill-informed about what old people are like and what it is like to be old. We are perhaps beginning to change, as more human service workers are finding that a large proportion of their clientele is old and as more gerontology is being taught in our colleges and professional schools.

The Santa Fe project has contributed to the momentum for a positive change. It has demonstrated that a well-designed course in gerontological nursing can favorably influence attitudes and skills for nursing the elderly, both in ADN students and in RNs — at least to the point of raising their levels of knowledge and awareness. However, at this point it cannot be said that the project motivated students to work with the elderly, since none of them are doing so except the three who were already employed in nursing homes. This outcome suggests that although much is still needed from education, we cannot expect education to do it all. Improvement of our nursing homes is going to be necessary, and this will not happen until society demands it. Also essential is the further trial and expansion of alternative and preventive modes of care. Nurses who have been through an educational experience like the Santa Fe project may be important allies in pushing for these measures.

Educators have questioned whether gerontological content can be successfully added to the ADN curriculum, which is already very tight, with a great deal to get into two years as it is. Is it really practical to add new material and clinical assignments, and still expect to produce a nurse with all the basic skills she needs? Should time for gerontology in the curriculum be expanded at the expense of other clinical subjects? A strong case might be made for that, in view of population trends. Elective courses, such as the one at Santa Fe, are recommended.

If the Santa Fe experience shows anything to generalize from, it is that education cannot solve the problems alone. It seems highly unlikely that many qualified RNs with any type of preparation will be attracted to work in nursing homes until these are more professionally congenial places in which to work, with standards of staffing and care more compatible with those the nurse would espouse. And errant nursing homes will not change until society demands that they do. Hopes for the future must rest on a change in the cultural attitude toward the old — which may indeed be brought about as the proportion of elderly citizens in our population continues to rise.

Alternative Teaching Strategies
St. Petersburg Junior College

In addition to testing electives designed to improve the clinical abilities of ADN students, the NCP staff wished to test the effect of various teaching strategies on both the quality and quantity of clinical learning time. With this in mind, St. Peterburg Junior College agreed to initiate a clinical learning project with the NCP and the W.K. Kellogg Foundation.

St. Petersburg Junior College wished to improve both the technical and organizational skills of its ADN graduates. The college's nursing students were graduating into a community having a dearth of BSNs and they were consequently often pressed into responsibilities for which their education and experience had not prepared them. This was particularly true during the winter months, when hospital populations in the area increase tremendously and heavily burdened nursing staffs do not have the time to help neophyte nurses sharpen their skills on the job. The college, therefore, was looking for ways to increase and intensify students' clinical experiences, with special attention to technical skills, and to help them acquire the skills to plan and set priorities in caring for several patients at one time.

The college set the following goals for a demonstration project: (1) improving students' clinical competencies, especially those related to manipulative skills; (2) improving the organizational skills of the student caring for groups of six to eight patients; and (3) providing a simulation of the graduate nurse's experience to prepare neophytes for the transition from student to graduate.

The teaching strategies that were chosen to achieve these ends were (1) appointment of two "adjunct instructors" — expert clinicians assigned full time to "float" in a hospital to locate opportunities for special

learning experiences and to assist faculty in their supervision of the students; (2) use of "peer tutors" — students with records of outstanding clinical performance, or having special backgrounds, to assist students in the college laboratory or clinical agency; (3) initiation of a "mini-practicum" — the assignment of senior students to a single agency for three weeks plus one day, eight hours a day, five days a week, for a concentrated period of clinical experience simulating the graduate nurse's role in a clinical setting.

Instituted at the same time, though not an official part of the demonstration project, was a six-week, nine-credit course in the organization of patient care that immediately preceded the mini-practicum in the student's program. In this course students had four full days of clinical experience to study and practice methods of delivery of patient care.

The rationale underlying the selection of these strategies included the assumptions that the ADN graduate should be well prepared to give secondary care at staff level; that significant learning depends on relevance and participation in a minimally threatening environment; and that the trauma experienced by the new nurse can be minimized if some role transition can occur while the student is still in the protected school environment.

Adjunct Instructors

College faculty had often reported that valuable learning experiences in the agencies had to be foregone because the instructor already had as much as she could do to supervise 10 or 12 students delivering total patient care. Employing an adjunct instructor would mean that a skilled clinician could locate and provide supervision for additional learning experiences within the hospital setting. The primary goal in utilizing adjunct instructors was to augment opportunities for skill development in the clinical area. They were to communicate with the regular instructors about specific student needs, locate available nursing procedures within the agency, demonstrate and supervise procedures with the student, give the student immediate feedback, and report orally and in writing to the primary instructor about the student's performance.

Employment of the two adjuncts to be provided by the project was delayed for a semester until mid-year, when it was decided to employ two BSNs having valuable experience and proven clinical expertise. Both the college and the agencies cooperated in their orientation, and the two adjuncts were in daily communication with the nursing personnel in the agencies about educational opportunities available in the hospital.

Faculty reports and student feedback collected systematically and analyzed at the end of the semester yielded encouraging findings:

- Skill development had been enhanced;
- Students were enabled to perform more procedures and have more questions answered;
- Assessment of student strengths and weaknesses had been improved through dual evaluation;
- Weaker students had greater opportunity to succeed;
- Cooperative relations with clinical agency personnel were improved;
- More than one adjunct instructor was needed in each of the two hospitals.

Accordingly, two more adjunct instructors (regular faculty members) were provided by making alterations in the assignments of college faculty during the second year.

Peer Tutors

Another method for augmenting student opportunities to learn clinical — especially procedural — skills was the use of peer tutors in both the college nursing laboratory and the clinical agencies. It was thought that peer tutors could supplement faculty supervision of learning and at the same time enhance learning by decreasing the anxiety students often feel in the presence of faculty members.

In the first academic year of the project, 1977-78, 28 peer tutors were appointed, selected on the basis of faculty recommendations because of their outstanding theoretical and clinical performance. Some of them had special backgrounds, with experience as LPNs or respiratory therapists, and some had special talents, such as an unusual aptitude for mathematics. Each peer tutor was assigned to one instructor, who oriented him or her to the objectives of the program and to whom the peer tutor gave feedback on student progress. Students functioning as peer tutors were officially appointed and registered as part-time employees of the college and were paid the minimum hourly rate. In the clinical area they wore uniforms and name pins identifying them as peer tutors.

Responses elicited from students and faculty at the end of the first year indicated that the hoped-for outcomes were being realized. Students did indeed feel less anxious in working with peer tutors and more willing to reveal their own areas of weakness. Charting capability, performance of aseptic techniques, and recognition of specific patient problems all improved. With this encouraging success, the number of peer tutors was increased to 33 in the second year, with the college paying the amount over that budgeted for the project.

Formal evaluation conducted at the end of the second year yielded many positive student reactions and results, a few negative ones, and helpful suggestions for making the program still better. Most students reported that experience with peer tutors had pro-

moted their confidence in performing procedures, stimulated their thinking and problem-solving, given them a sense of continuity, increased their chances to learn, and decreased their anxiety in doing so. Problems included occasional discrepancies between the instructions given by the peer tutors and those given by the faculty, and too strict or critical an attitude on the part of one or two peer tutors that had the effect of increasing rather than decreasing anxiety. More careful screening and orientation of the tutors were recommended as remedies. Students also suggested that tutors should be assigned to every clinical session and every clinical group and should be given time to assist with the nursing care plans as well as with skills performance.

Not the least benefit of the peer tutoring program was the effect on the tutors themselves. They gave the experience a high rating, believing that it had clarified their own knowledge and given them more confidence in it. Faculty members agreed that, from their own observation, the peer tutors had gained in skill and self-confidence.

The Mini-Practicum

The trauma experienced by new nurse graduates in their first staff assignment is a serious problem. It is costly to the subject emotionally and financially (in terms of time and money spent on education) if, as often happens, the nurse becomes discouraged and drops out. It is also expensive for the employing agency, as it raises the turnover rate and the costs of the orientation program, to say nothing of the cost of inadequate nursing service. This trauma results from the conflict in values faced by the graduate, whose education rewarded individualized care planning and the total care of one patient, but whose employer requires her to think and act on behalf of a number of patients at one time. She has had no opportunity to practice the organizational and decision-making skills called for in the staff assignment, nor has she experienced the continuity of a five-day, eight-hour shift.

Data collected by the college faculty had revealed a need to augment students' clinical learning experience in time and magnitude as well as frequency. Surveys of students, faculty, graduates, and employing agencies indicated the student's need for increased clinical practice prior to assuming a beginning staff position. The challenge was to design a program that would simplify the transition from student to graduate and minimize the frustrations encountered by both graduate and employer. The mini-practicum was conceived as a way of accomplishing this.

As devised by the college project, the mini-practicum is a continuation of the final semester of nursing study with a concentrated period of clinical experience simulating the graduate nurse role in the secondary care setting. The student functions as a staff nurse under the guidance of an experienced nurse for 40 hours a week for three weeks plus one day. A faculty member is available as support for both the student and the role model and to act as liaison between the college and the agency. The mini-practicum was expected to ease the transition from student to graduate nurse by providing students with the time and opportunity to:

- Improve abilities to care for a group of patients;
- Reinforce previously learned technical skills;
- Develop coping strategies for dealing with conflicting value systems.

The learning experiences were selected to simulate real working conditions while providing an educational system to assist the student. Opportunities in leadership were included to reinforce the course in organization of patient care, a requirement during the final semester.

The mini-practicum was first used on an elective basis with the spring 1978 graduating students, permitting faculty members to identify its strengths and weaknesses before implementing it for all the students. The mini-practicum elective consisted of a 128-hour, 4-credit course held for three weeks immediately following graduation from the nursing program.

Offering the mini-practicum as a post-graduate elective presented some difficulties for both students and faculty. When the students were told about it, 28 expressed interest in participating. However, agencies experiencing staffing shortages were actively soliciting graduates for staff positions, and students having financial difficulties found it a hardship to delay employment. In a recruitment effort, administrators of two community agencies offered to pay mini-practicum participants' full salary if they in turn would agree to remain employed for a specified period. The faculty decided to approve these terms after due consideration of some of the pitfalls. In response to this offer, 13 students elected to participate in the project. One student withdrew for personal reasons, leaving 12 who completed the course. Thirteen students who did not participate in the mini-practicum project volunteered to be in the control group.

Evaluation of the mini-practicum elective consisted of assessments of student performance by both instructors and role models and follow-up questionnaires completed by subjects and controls five weeks after the course ended. Data indicated that all students taking the elective met the objectives outlined in the syllabus. Responses from subjects and controls showed little difference in self-perception, except in the areas of planning nursing care and providing for continuity of patient care. (It is probably significant that both the participants and the controls were among the better students in their graduating class.) Narrative comments by the participants indicated that the mini-practicum provided the additional time

needed to adjust to a new role before being required to work independently. The students believed that the mini-practicum had increased their self-confidence.

This positive feedback strengthened the faculty's decision to require the mini-practicum for all students. This meant restructuring the curriculum and working out new agreements with cooperating agencies. The courses in the first three semesters had to be consolidated to allow for a concentrated clinical experience in the fourth semester. The new approach enabled the students to integrate previous learning into a broader context, emphasizing care for groups of patients.

Changing the mini-practicum from an elective to a requirement made necessary the use of more agencies so that 57 students could be accommodated in medical-surgical units. Several months before the fall 1978 practicum, representatives from eight general hospitals in the community met with college representatives to discuss the implementation of the mini-practicum project. Project staff members outlined the objectives, plan, and expected outcomes for the project. All of the agencies expressed a willingness to participate in the project, and each determined the number of students it could accommodate. Intensive care areas were not generally approved for student placement but were utilized at the last moment when suitable role models were not available in other medical-surgical areas. Nursing administration responsibilities of the cooperating agencies were jointly agreed upon. These were:

- To provide the student with a qualified role model;
- To provide appropriate clinical areas;
- To insure adequate staffing so as to maintain an educational environment for the student; and
- To participate in the evaluation.

An adequate number of qualified role models who would be willing to accept responsibility for a student was essential to the project; all were volunteers, chosen by the agency with the approval of the faculty. Skill in organizing and delivering care to hospital patients was the most important qualification of a role model. The faculty developed an outline of the role model's functions, which was shared with both the nurse and the student in an orientation session:

- Provide opportunities for the practicum student to pursue individual learning objectives in line with the overall course objectives and the agency protocols;
- Provide opportunities for the student to function in a leadership role;
- Serve as a resource person, consultant, and supervisor for the student's clinical experience;
- Make student assignments, giving careful attention to the objectives of the practicum and the scope of the student's knowledge and skills;
- Keep daily anecdotal notes on the student's progress;
- Plan with the student to reinforce areas of strength and identify deficiencies;
- Assist the faculty in evaluating student's performance; and
- Assist faculty in evaluating the mini-practicum.

The instructor's role remained as it had been defined in the elective, and the student-instructor ratio was kept at 12 to 1. Each instructor was responsible for students in two or three agencies.

Students entering the mini-practicum could select day or evening duty. Each student set measurable goals and kept a daily log. The instructors identified areas in which the students needed experience. Weekly meetings of students, instructors, and role models were held in each agency. Students in the required mini-practicum did better than those in the pilot elective, as they had completed the coursework on organization of patient care; some were ready for a leadership assignment by the second week. All students appeared to gain confidence and competence, and those who had objected to the new requirement said at the end that they would not have missed it.

Evaluation indicated that the participants had made substantial gains in clinical ability. The Mini-Practicum Clinical Experience Evaluation, an instrument completed by the instructors with input from the role models, showed that every student had attained the performance objectives. Five weeks after the mini-practicum, student responses to a questionnaire eliciting their own perception of their specific skills showed overwhelmingly that most of them felt "confident" to "very confident" about most abilities.

Students suggested that the mini-practicum could be improved by increasing its length, increasing the frequency of the seminar discussions, allowing more time for team leadership, intensifying their orientation to the ward, and intensifying their review of objectives with the role models. To these suggestions, the faculty and role models would add the desirability of giving the latter more preparation in ways to offer constructive criticism and in what and how to evaluate.

A follow-up questionnaire sent to the agencies was returned by only one, which noted benefits to both students and agency staff. The willingness of the other agencies to continue the program is, of course, an indirect and positive evaluation. The college is aware of improved relations with the agencies, which now perceive the college as committed to educating nurses who are well grounded in both nursing principles and nursing skills. The college also finds in the cooperating

agencies a greater sensitivity to the needs of the beginning practitioner.

The Bottom Line

Nursing students at St. Petersburg felt less anxiety and greatly enhanced their technical skills by working with peer tutors. They experienced more varied and intensive clinical procedures through the efforts of the adjunct instructors. And, they became more secure and capable practitioners through the mini-practicum. Since the essential purpose of these three components of the project was to improve the clinical competence of the ADN graduate, the college believes the project was successful in achieving its goal. One hundred percent of the faculty expressed complete satisfaction with the results.

Since the project ended, the peer tutor program has been retained, operating for the present on capitation funds, but with long-range plans for work-study funds. The adjunct instructorships proved to be such a valuable means of finding good clinical experiences that these, too, have been continued. As for the mini-practicum, three agencies thought it so worthwhile that they urged the college president to keep it going, and this has been done. Graduates now say that they find themselves well prepared and cannot see how former students got along without it.

Conclusion

In conclusion, it can be said that as the number of ADN graduates began to grow, the employment opportunities suited to their particular nursing skills were less readily available. Graduates of the early ADN programs were constantly placed in positions for which they lacked the usual educational preparation. Faculties responded to this mismatch by altering the educational program — extending its length and adding courses not in harmony with the original concept of the first ADN programs.

Also, patient conditions were changing; clients were more sickly and older than they had been in the 1950s when the purposes of the technical program were determined. The gap between what the marketplace demanded and what the graduate was able to give widened. Criticism became more vocal. Crisis was reached in the 1970s. Remedies were sought by redefining the role of the graduate.

In addition, little was being done to orient the novice nurse to the acute care hospital. Only 65 out of more than 7,000 hospitals had internship programs, and in-service departments were initially overwhelmed with the need for their services in orienting the new graduates who were coming to the setting with many fewer clock hours of clinical experience than former graduates.

The SREB-NCP's work would indicate that adding electives, enriching clinical learning time, and improving teaching strategies can resolve the differences plaguing the people responsible for developing ADN education without unnecessarily modifying the length or the nature of the curriculum.

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